Oil Streak

Streak Sensing Unit



Overview

The Streak Sensing Unit system detects and monitors lubrication for high-speed spindles and other applications requiring accurate oil deliveries. The Streak Sensing Unit is versatile and allows multiple configurations that enable systems to be designed to suit various applications.

Application

The Streak Sensing Unit is designed to detect oil traces in the air tube, down to 5mm³/min. The product has been designed using a primary/secondary concept. The primary sensor, while monitoring a single tail tube, also incorporates a 4-segment LED display, 3 soft keys for programming and configuring, and an M12 electrical connector for power supply and fault alarm output. The secondary sensors may be piggybacked to the primary sensor, up to a maximum of 3, or may be remotely connected via an interconnecting cable. One secondary sensor can monitor one tail tube. The sensors are designed for either 4mm or 6mm tube.

The sensor works by detecting and counting pulses, generated from the oil particles in the air stream passing through optical components of the sensor. The count value is checked periodically and compared with the calibrated value. Should the count value fall below a certain predetermined point, then the unit will initiate an alarm. The calibrated value is the value as determined by a calibration sequence which is initiated by the user, on initial setup, and once a steady-state stream of oil can be clearly seen in the tubes. Various other parameters may be configured through the menu on the primary sensor.

The sensors may be sold separately, or as a kit, or indeed may come incorporated in an Air-Oil spindle lubrication system panel. On such a panel, the sensors have been designed to interface directly with the SureFire Lubricator with a controller.

Technical Data

Operating Voltage		10 to 30 VDC
Operating Temperature		32°F to 122°F (0°C to 50°C)
Certification		CE
Fault Alarm Relay Contact Rating		0.13 A, 24 V
IP Enclosure Rating	Without Enclosure	IP-54
	In Enclosure	IP-66
Weight	Primary	50g
	Secondary	40g
Materials	Main body	Nylon 66 (black)
	Cover	Zinc plated steel
	Fastners	Zinc plated steel
	Tube fittings	Nickel plated Brass
	M12 connector	Nickel plated Brass
Power Consumption	Primary	1.5 W
	Secondary	0.5 W
Overall Dimension		262mm x 372mm x 190mm



Refer to the following documents:

- + Operators Manual #35651: Streak Sensing Unit
- + Datasheet #35720: Oil Streak Generating Unit
- + Datasheet #35721 Oil Streak Mixing Unit
- + Datasheet # 35465: SureFire PDI Lubricator

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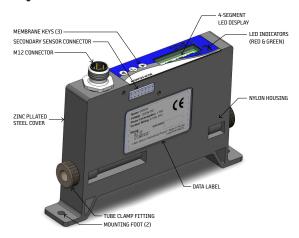
How to Order

Name		Description	Part #
Streak Sensing Unit	Primary	4mm tubing	OSS-M4
		6mm tubing	OSS-M6
	Secondary	4mm tubing	0SS-S4
		6mm tubing	0SS-S6
Streak Sensing Unit: Primary & Secondary Sensors (Complete assembly w/brackets)		2-way assembly, 4mm tubing (1 Primary & 1 Secondary)	0SS-B42
		3-way assembly, 4mm tubing (1 Primary & 2 Secondary)	0SS-B43
		4-way assembly, 4mm tubing (1 Primary & 3 Secondary)	0SS-B44
		2-way assembly, 6mm tubing (1 Primary & 1 Secondary)	0SS-B62
		3-way assembly, 6mm tubing (1 Primary & 2 Secondary)	0SS-B63
		4-way assembly, 6mm tubing (1 Primary & 3 Secondary)	0SS-B64

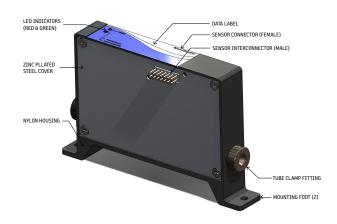
When ordering, specify by name, description and part number, e.g. Streak Sensing Unit, Primary, 4mm tubing, Part #0SS-M4.

Streak Sensing Unit at a Glance

Primary Sensor



Secondary Sensor



ATTENTION

The Streak Sensing Unit is for indoor use only.

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Accessories

Description		Part #
Mounting Bracket	2-way, complete with mounting fastners	OSS-B2
	3-way, complete with mounting fastners	OSS-B3
	4-way, complete with mounting fastners	OSS-B4
Electrical Cord	M12, straight, 2m long (connects to sensor)	M124S02U34
	M12, 90°, 2m long (connects to sensor)	M124A02U34
	M12, straight, 5m long (connects to sensor)	M124S05U34
	M12, 90°, 5m long (connects to sensor)	M124A05U34
	M12, straight, 10m long (connects to sensor)	M124S10U34
	M12, 90°, 10m long (connects to sensor)	M124A10U34
Electrical Cord Extension	M12, straight, 1m long (connects to sensor & SureFire)	M124SS01EX
	M12, straight, 3m long (connects to sensor & SureFire)	M124SS03EX
	M12, straight, 5m long (connects to sensor & SureFire)	M124SS05EX
	M12, straight, 10m long (connects to sensor & SureFire)	M124SS10EX
M12 Connector	Field-wireable, straight (connects to sensor)	23694
(no cable supplied)	Field-wireable, angled (connects to sensor)	23694-1
	Field-wireable, straight (connects to SureFire)	23846
	Field-wireable, angled (connects to SureFire)	23846-1
OSS Tube Size Conversion Kit	Convert sensor from 6mm to 4mm	OSS-K4
	Convert sensor from 4mm to 6mm	OSS-K6
IP66 Enclosures	4-way enclosure for 4mm tubing	OSS-E4
	4-way enclosure for 6mm tubing	OSS-E6
Complete Enclosure Assemblies	1-way Enclosure for 4mm tubing (c/w primary sensor $&$ 5m trailing cable)	OSS-E41
	2-way Enclosure for 4mm tubing (c/w primary & secondary sensor & 5m trailing cable)	OSS-E42
	3-way Enclosure for 4mm tubing (c/w primary & 2 secondary sensors & 5m trailing cable)	0SS-E43
	4-way Enclosure for 4mm tubing (c/w primary & 3 secondary sensors & 5m trailing cable)	OSS-E44
	1-way Enclosure for 6mm tubing (c/w primary sensor & 5m trailing cable)	OSS-E61
	2-way Enclosure for 6mm tubing (c/w primary & secondary sensor & 5m trailing cable)	OSS-E62
	3-way Enclosure for 6mm tubing (c/w primary & 2 secondary sensors & 5m trailing cable)	OSS-E63
	4-way Enclosure for 6mm tubing (c/w primary & 3 secondary sensors & 5m trailing cable)	0SS-E64

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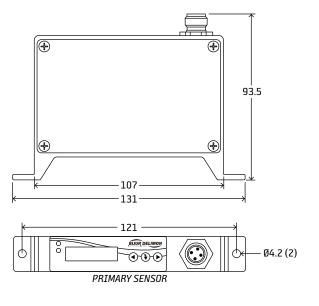
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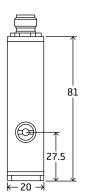
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Dimensional Schematics

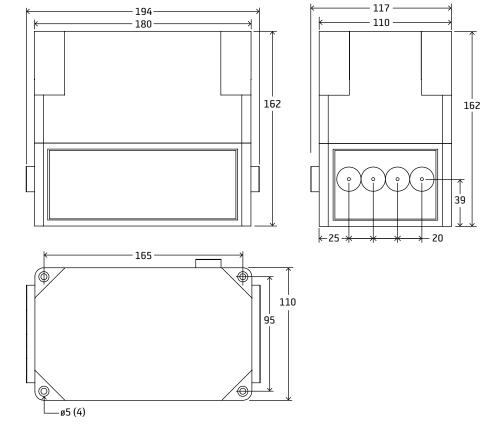
Sensors







IP Enclosure



Measurements shown in millimeters.

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